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| APPLICATION NO.  | FILING DATE   | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|--|---------------|----------------------|-------------------------|------------------|
| 09 633,782   | 08 07 2000    | Gun-Hee Lee          | 3430-0129P              | 3862             |
| 750  | 90 02 12 2002 |                      |                         |                  |
| BIRCH, STEWART, KOLASCH & BIRCH, LLP<br>P. O. Box 747<br>Falls Church, VA 22040-0747 |               |                      | EXAMINER                |                  |
|  |               |                      | NGUYEN, HOAN C          |                  |
|  |               |                      | ART UNIT                | PAPER NUMBER     |
|  |               |                      | 2871                    |                  |
|  |               |                      | DATE MAILED: 02-12/2002 |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   |  |   |  | ki/                     |
|---|--|---|--|-------------------------|
|   |  | Application No.   | Applicant(s)   |                         |
|   | ,  | 09/633,782  | LEE ET AL.   |                         |
| Office Action Summary                                 |  | Examiner  | Art Unit   |                         |
|   |  | HOAN C. NGUYER  | N 2871   |                         |
| Period fo   | The MAILING DATE of this communication or Reply  | appears on the cover st   | neet with the correspondence   | address                 |
| THE - External after - If the - If NO - Failure - Any | IORTENED STATUTORY PERIOD FOR REI MAILING DATE OF THIS COMMUNICATION INSIGNS of time may be available under the provisions of 37 CFR of SIX (6) MONTHS from the mailing date of this communication. The period for reply specified above is less than thirty (30) days, a period for reply is specified above, the maximum statutory per uncerto reply within the set or extended period for reply will, by stareply received by the Office later than three months after the material part of the provided by the Office later than three months after the material part of the provided by the Office later than three months after the material part of the provided by the Office later than three months after the material part of the provided by the Office later than three months after the material part of the provided by the Office later than three months after the material part of the provided by the Office later than three months after the material part of the provided by the Office later than three months after the material part of the provided by the Office later than three months after the material part of the provided by the Office later than three months after the material part of the provided by the Office later than three months after the material part of the provided by the Office later than three months after the material part of the provided by the Office later than three months are provided by the Office later than three months are provided by the Office later than three months are provided by the Office later than three months are provided by the Office later than three months are provided by the Office later than three months are provided by the Office later than three months are provided by the Office later than three months are provided by the Office later than three months are provided by the Office later than three months are provided by the Office later than three months are provided by the Office later than three months are provided by the Office later than three months are provided by the Office later than three mo | N. 1.136(a) In no event, however reply within the statutory minimulated will apply and will expire SIX stute, cause the application to be | , may a reply be timely filed<br>m of thirty (30) days will be considered tin<br>(6) MONTHS from the mailing date of this<br>come ABANDONED (35 U.S.C. § 133). | nely<br>s communication |
| 1)  | Responsive to communication(s) filed on _  | ·   |  |                         |
| 2a)   | This action is <b>FINAL</b> . 2b)⊠   | This action is non-final  | l.   |                         |
| 3)  | Since this application is in condition for alloclosed in accordance with the practice und  |   |  | the merits is           |
| Disposit  | ion of Claims  |   |  |                         |
| 4)⊡   | Claim(s) 1-18 is/are pending in the applicat   | tion.   |  |                         |
|   | 4a) Of the above claim(s) is/are without   | drawn from consideration  | on.  |                         |
| 5)  | Claim(s) is/are allowed.   |   |  |                         |
| 6)⊡   | Claim(s) <u>1-18</u> is/are rejected.  |   |  |                         |
| 7)  | Claim(s) is/are objected to.   |   |  |                         |
| 8)[   | Claim(s) are subject to restriction and  | d/or election requireme   | ent.   |                         |
| Applicat  | ion Papers   |   |  |                         |
| 9)[   | The specification is objected to by the Exam   | iner.   |  |                         |
| 10)   | The drawing(s) filed on is/are: a) ac  | ccepted or b) objected  | to by the Examiner.  |                         |
|   | Applicant may not request that any objection to  | the drawing(s) be held in   | n abeyance. See 37 CFR 1.85(a  | a).                     |
| 11)   | The proposed drawing correction filed on   | is: a) approved   | b) $\square$ disapproved by the Exam   | niner.                  |
|   | If approved, corrected drawings are required in  | reply to this Office action   | 1.   |                         |
| 12)   | The oath or declaration is objected to by the  | Examiner.   |  |                         |
| Priority  | under 35 U.S.C. §§ 119 and 120   |   |  |                         |
| 13)[-   | Acknowledgment is made of a claim for fore   | eign priority under 35 U  | .S.C. § 119(a)-(d) or (f).   |                         |
| a)  | ☑ All b)☐ Some * c)☐ None of:  |   |  |                         |
|   | 1. Certified copies of the priority docume   | ents have been receive  | ed.  |                         |
|   | 2. Certified copies of the priority docume   | ents have been receive  | ed in Application No   |                         |
| * (   | 3. Copies of the certified copies of the p application from the International See the attached detailed Office action for a limited process.   | Bureau (PCT Rule 17.3   | 2(a)).   | al Stage                |
|   | Acknowledgment is made of a claim for dome   |   |  | nal application)        |
| á   | a)  The translation of the foreign language  | provisional application   | has been received.   | таг аррпсанотту.        |
| •   | Acknowledgment is made of a claim for dome   | estic priority under 35 l   | J.S.C. §§ 120 and/or 121.  |                         |
| Attachmer   |  | 🗖   |  | N. 7.                   |
| 2) Notice   | ce of References Cited (PTO-892)<br>ce of Draftsperson's Patent Drawing Review (PTO-948)<br>mation Disclosure Statement(s) (PTO-1449) Paper No(s   | 5) 🔲 No   | terview Summary (PTO-413) Paper I<br>ptice of Informal Patent Application (I<br>her:   |                         |
|   |  |   |  |                         |

U.S. Patent and Trademark Office PTO-326 (Rev. 04-01) Application/Control Number: 09/633,782

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#### **DETAILED ACTION**

### **Drawings**

1. The drawings are objected to under 37 CFR 1.83(b) because they are incomplete. 37 CFR 1.83(b) reads as follows:

When the invention consists of an improvement on an old machine the drawing must when possible exhibit, in one or more views, the improved portion itself, disconnected from the old structure, and also in another view, so much only of the old structure as will suffice to show the connection of the invention therewith.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance. The assigned numbers in all figures do not clearly point to the assigned features or parts.

#### Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, with the color filter formed over the pixel electrode (feature d), how a first orientation film should be formed on the black matrix and the pixel electrode (feature f). Claims 2-10 are rejected since they depend on the infinite claim.

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- 2. Claims 12-18 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. In claim 12, the omitted steps are: "sealing the substrate" for holding an injected liquid crystal inside the gap between substrates.

  Claims 13-18 are rejected since they depend on the infinite claim.
- 3. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "upper or lower" in claims 1 and 12 is a relative term which renders the claim indefinite. The term "upper or lower" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. To overcome 102-rejection as below, applicant need to specify the reference point corresponding to "upper or lower" position. To overcome 103-rejection with obviously turning upside down the liquid crystal panel for preventing the TFT absorbing heat from light source, applicant should provide the evidence of different results if the liquid crystal panel is turned upside down.

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by a prior art admitted in this application.

With respected to claims 1 and 2, applicant admits a prior art (Fig. 2) that has all feature of the claim 1 with turning upside down the liquid crystal panel. However, the term "upper or lower" in "upper substrate or lower substrate" is a relative term: "upper or lower" respects to what. Without a fixed reference point, first substrate 10 can be an upper substrate and second substrate 50 can be a lower substrate when liquid crystal panel turned upside down. Furthermore, the liquid crystal panel in Fig. 2 with or without turning upside down will give same result, therefore, there is no new feature has invented except rearranging the LCD device elements that was turning upside down the liquid crystal panel. Unless applicant can show that in their invention the liquid crystal panel with or without turning upside down will give different results and applicant need also specify a reference point of "upper or lower" which is respected to what [wherein the liquid crystal panel in Fig. 2 defines as the all elements between substrate 10 and substrate 50].

With respected to claim 12, applicant admits a device, wherein the manufacturing steps of this device in prior art (Fig. 2) is same as that in this application of invention because the same manufacturing method is used to make the <u>lower</u> active-matrix substrate in prior art (Fig. 2) and the <u>upper</u> active-matrix substrate in this application of invention. The same method is also used to manufacture a (lower or upper) substrate, on which forms a common electrode and orientation film as the second substrate 50 in

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Fig. 2. Again the term "upper or lower" in "upper substrate or lower substrate" is a

relative term.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to HOAN C. NGUYEN whose telephone number is

(703)306-0472. The examiner can normally be reached on MONDAY-

THURSDAY:8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, SIKES L WILLIAM can be reached on (703)308-4842. The fax phone

numbers for the organization where this application or proceeding is assigned are

(703)746-8178 for regular communications and (703)308-5841 for After Final

communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703)308-

0530.

HOAN C. NGUYEN

Examiner

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February 5, 2002

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